

Call For Papers: The Third Workshop on Large-scale Data Utilization in Economics of Information and Management Sciences: Theory, Computation, and Experiment

<<Title>> The Third Workshop on Large-scale Data Utilization in Economics of Information and Management Sciences: Theory, Computation, and Experiment

<<Acronym>> EconManag

<<Workshop Style>> hybrid or full online: We will decide the workshop style according to the preference of the majority of speakers, PC members, and supporting members.

<<Introduction to Workshop>>

The purpose of this workshop is to discuss how large-scale data are dealt with in economics and management sciences including marketing, finance, and accounting interdisciplinary among practitioners, engineers. We intend to clarify what kinds of effect those data have in our social institutions and share what are obstacles to promoting the utilization in those fields.

Since social or cultural systems are fundamentally different among different countries and regions, the data usage that successfully worked in a region does not necessarily work in the same way in other regions. The goal of this workshop is to explore the utilization of large-scale data in consideration of such social or cultural backgrounds across disciplines with practitioners, engineers, and researchers in information engineering.

As special topics, furthermore, we intend to discuss various methodologies of experiments for the interactions between computers and cognitive or emotional aspects of human behavior in digital marketing, accounting informatics, and personnel management as well as financial issues, and energy supply. Topics related to practical use of technologies on large-scale data are provided from the viewpoints of information engineering and computer science, and economics of information.

<<Research Topics>>

We call for papers written by anyone who are interested in the following topics related to this workshop.

Data-oriented Applications in Management:

- Economics of Information and Organization
- Statistical Techniques and Algorithms
- Financial Risk and Security
- Health Care and Medical Issues
- Digital Marketing and Marketing Science
- Management Accounting and Informatics
- Dynamical Systems and Econophysics
- Computational Social Science
- Experimental Social Science

- Human-Computer Interaction
- Social Simulation and Numerical Studies
- Lab and Field Experiments

Markets for Data Transaction:

- Process and Technologies for Data Exchange
- Pricing Data and Data Platform
- Data Acquisition and Sensors
- Strategic Manipulation and Incentives
- Fairness and Social Welfare

Case Studies:

- Methods for Evaluation of Data Utilization
- Curation and Management of Data
- Trust, Resilience, Privacy Issues
- Urban Planning and Transportation
- Generation and Supply of Renewable Energy

Practical Use of Technologies:

- Text and Data Mining, Summarization, Topic Analysis, and Report Generation
- Machine Learning for Social Data
- Reinforcement Learning in Economics
- Retrieval/Recommender Systems
- Big Data Optimization
- Causality Estimation in Management
- People Analytics and Personnel Issues
- Eye Tacking, Mouse Tracking, and EEG

Methods of Experiments:

- Behavioral Science and Modeling
- Cognitive Science and Human Behavior

<<Important Dates>>

June 2 (Mon), 2025: PC sends out Call for Paper

June 30 (Mon), 2025: Workshop Paper Submission Starts (US-EST)

The Paper Submission Site will be open and displayed at the end of this CFP.

Oct 1 (Wed), 2025: Due date for full workshop paper submission (US-EST)

The due date was extended to Nov 6 (Wed), 2025 (as of Oct 31, 2025)

Nov 8 (Sat), 2025: Notification of paper acceptance to authors (US-EST)

No later than Nov 23 (Sun), 2025 (Nov 15: recommended): Camera-ready of accepted papers (US-EST)

Dec 8-11 (Mon-Thu), 2025: Workshop (CST)

<<Format and Schedule>>

Half day (8 presentations)

Time	Contents
8:50-9:00	Opening Notes
9:00-10:40	4 Presentations
10:45-11:15	Invited Talk: (still in negotiation)
11:20-13:00	4 Presentations

When more than 10 papers are accepted for the presentation, we will manage a one-day workshop. We are still negotiating some candidates for the keynote speech, those of whom are **big-data engineers** who are interested in the interaction with **economics of information** and **management sciences**.

<<Estimate of the audience size>>

20-25 participants

<<Program Committee: Tentative list>>

Organizers

Naoki Watanabe (Chair), Keio University, Japan: Economics of Information
Kazuhito Ogawa (Co-Chair), Kansai University, Japan: Behavioral and Experimental Economics
Hiroyasu Ando (Co-Chair), Tohoku University, Japan: Mathematical Modeling, IEEE member

PC Members (Organizers are omitted in this list.)

Hiroki Sakaji, Kokkaido University, Japan: Natural Language Processing, IEEE member
Hiroyasu Matsushima, Shiga University, Japan: Multi-Agent Simulation, IEEE member
Nariaki Nishino, The University of Tokyo, Japan: Service Engineering
Zhen Li, Kansai University, Japan: Digital Marketing, Eye-Tracking
Satoshi Takahashi, The University of Electro-Communications, Japan: Operations Research

Supporting Members

Yuya Akita, Kyoto University, Japan: Spoken Language Processing, IEEE member
Tetsuya Kawamura, Tezukayama University, Japan: Behavioral and Experimental Economics
Yoichiro Fujii, Meiji University, Japan: Actuarial Science
Yusuke Osaki, Waseda University, Japan: Finance
Yoichi Izunaga, Kyushu University, Japan: Operations Research
Takashi Yamada, Yamaguchi University, Japan: Social Simulation
Satoshi Taguchi, Doshisha University, Japan: Management Accounting
Rei Goto, Keio University, Japan: Medical and Health Economics
Taro Kumano, Yokohama National University, Japan: Matching Theory
Eizo Akiyama, The University of Tsukuba, Japan: Human and Computer Interaction
Morimitsu Kurino, Keio University, Japan: Matching Theory
Ken Ishibashi, Kansai University, Japan: Soft Computing, Eye-Tracking
Hajime Kobayashi, Kansai University, Game Theory, Experimental Economics
Yoshitaka Okano, Kansai University, Behavioral and Experimental Economics

<<Our past record>>

As part of the Big Data 2023 workshops, we successfully conducted the First Workshop on `` Large-scale Data Utilization in Economics of Information and Management Sciences: Theory, Computation, and Experiment in Sorrento, Italy. 10 distinguished papers were accepted after blind reviews and there were an audience of more than 25 participants in person. After reviewing 13 papers, we accepted 10 papers. (The invited speaker also submitted his paper to the workshop.)

The Second WS held jointly with Special Session on Understanding New Markets by Data Science, Social Science, and Economics in Washington D.C. USA. We had more than 30 participants in person. After reviewing 11 papers, we accepted 8 papers.

The website URL for WS 2024 and SS 2024 is as follows. <https://tetsuwaka.net/UNMDSSSE2024/>

<<Organizers' Short Biographies>>

Naoki Watanabe (Ph.D.):

Naoki is a professor of Management Science at Keio Business School. He received his Ph.D. in Economics from The State University of New York at Stony Brook (August 2003). His major academic contribution is the application of Game Theory to patent licensing and information markets. He has published papers on subject experiments in which voting systems and trading mechanisms as well as theoretical research. In practical activities, he has been involved in the planning of personnel algorithms for Japanese manufacturers.

■ webpage: <https://naoki-watanabe50.github.io/index.html/>

Kazuhito Ogawa (Ph.D.):

Kazuhito is a professor of Economics at the Faculty of Sociology at Kansai University. He received a doctorate degree in Economics from Kyoto University (March 2005). He has made academic contributions in the fields of Experimental and Behavioral Economics. In particular, he has published papers on experimental studies of cooperative and altruistic behavior. He has also conducted RCTs to explore how to improve our health. He is also the director of the Experimental Economics Laboratory at Kansai University.

■ webpage: <https://researchmap.jp/read0095810?lang=en>

Hiroyasu Ando (Ph.D.):

Hiroyasu is a professor of Mathematical Sciences for Open Innovation at Advanced Institute of Material Research at Tohoku University. He received a Ph.D. in Mathematical Informatics from the University of Tokyo (March 2007). His major areas of research include Mathematical Models of Complex Systems, Computations of Environmental Prediction, Data Analysis of IoT Vehicle Information. He is a member of IEEE. He engages in many research projects that promote industry-academia collaboration based on mathematical science.

■ webpage: <https://sites.google.com/site/hiroyasuando/home/cv>

<<The Paper Submission Site>> WS 12: **Already Closed**

https://wi-lab.com/cyberchair/2025/bigdata25/scripts/ws_submit.php

<<Accepted Papers and Time Table>> **December 10, 2025**

08:50-09:00 (JST in Tokyo): Opening Remark (07:50-08:00, CST in Macau)

09:00-09:20 (JST)

AI-Enhanced Two-Stage Clustering for COVID-19 Vaccine Discourse Analysis: Multi-Faceted Public Reaction Assessment, Takako Hashimoto, Tetsuji Kuboyama, Masashi Toyoda, Naoki Yoshinaga, Masaru Kitsuregawa, Takeaki Uno

09:20-09:40 (JST)

Numbers of Bids Placed under Approximate DGS Algorithms with Different Tie-Breaking Rules: A Subject Experiment of Multi-Item Auctions, Yoichi Izunaga, Satoshi Takahashi, Naoki Watanabe

09:40-10:00 (JST)

Effects of a “Topic Diversification System” Facilitating Diverse Topic Exposure on Topic Interest and Social Media Engage Behavior, Takuya Nagura, Eizo Akiyama

short break

10:10-10:30 (JST)

Passenger Trust and Driver Workload Evaluation via Heart Rate Variability in Bus Services, Hiroyasu Ando, Ryunosuke Fukuzaki, Morimitsu Kurino, Naoki Matsuda, Takahiro Noguchi

10:30-10:50 (JST)

Influence of Agent Social and Network Segregation on Fake News Diffusion, Yuta Kitagawa, Eizo Akiyama

short break

11:00-11:20 (JST)

Trapezoidal Frustum and Angle Bracket for the Maximum Drawdown, Jia-Hao Syu, Yuh-Dauh Lyuu

11:20-11:40 (JST)

**Towards Uncertainty-Aware Low-Bit Quantized LLMs for On-Device Inference,
Lorenz Sparrenberg, Tobias Schneider, Tobias Deußner**

11:40-12:00 (JST)

**Profitability of Slow Steaming under Vessel Offshore Waiting Conditions, Shunta Yoshimura,
Tomoya Kawasaki, Ayato Kitadai, Nariaki Nishino**

12:00-12:10 Closing Note

<<Corresponding Organizer>>

Naoki Watanabe (Chair-in-Chief)

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